

FOR FLOOD CONTROL WORKS Honolulu Engineer District

CEPOH-EC-T Iao06rpt-fcp.doc

1. Project Name: Iao Stream FCP

2. Date of Inspection: November 2, 2005

3. Inspection Personnel:

Name Agency/Office Telephone No.

a. Dan Meyers CEPOH-EC-T 438-8875 b. Eddie Emoto DFM 270-7869

4. Discussion:

The project: Iao Stream FCP is located in Wailuku, Maui, authorized by the Flood Control Act of 1968. The project was completed in 1980 and provides for a debris basin about 2.5 miles upstream of the mouth of Iao Stream, channel improvements from the debris basin to about 1,100 liner feet downstream of Market Street Bridge, diversion levees and channel improvements to the Waiehu Bridge. Maintenance deficiencies were noted and suggestions were made to the DPW representatives. These deficiencies and suggestions are listed below.

FY06 CEI Ratings

Project Rating: "S, Satisfactory"

Project Condition Code: "A, Acceptable"

Project Status: "Active"





FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc

Levee I and Debris Basin:



a. Sta. 135+00, Left Bank (LB), upstream of the debris basin, overview of the grouted rock slope protection.



b. Sta. 130+50, LB, Overview of Levee I, and debris basin. Remove vegetation from top of Levee. Remove castor bean tree on the sideslope.



c. Sta. 133+00, Right Bank (RB), vegetation removed from sideslope.



d. Sta. 127+00, RB, remove vegetation from toe of sideslope.



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc

Levee H:

NOTE: Drop apron #1 = Sta. 119+00



e. Sta. 119+00, LB, Overview of levee.



f. Sta. 119+00, RB, vegetation removed from top of sideslope and weep holes clean.

FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc

NOTE: Drop apron # 2 = Sta. 114+50



g. Drop Apron #2, verify invert condition in low flow, RB.



h. Sta. 109+75, Drop Structure #3, verify invert condition. FY04 Photo.



i. Sta. 90+00, RB, good maintenance.



j. Sta. 104.96, Awai drop structure.



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc



k. Sta. 93+25, RB-side of invert, repair invert.

Levee G:



1. Sta. 87+50, LB side of stream, vegetation cleared and unauthorized structure removed.

Iao06rpt-fcp.doc



m. Sta. 87+00, Remove trees from interior sideslope of levee G.



n. Sta. 86+00, woody vegetation removed. Good Maintenance.

Iao06rpt-fcp.doc



o. Sta. 79+36, Levee G, flapgate in good condition adjacent NRCS Channel.

Levee C:



p. Interior Sideslope of levee, pending repairs.



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

I-EC-T Iao06rpt-fcp.doc

Levee F:



 ${\bf q.}$ Overview, woody vegetation has been removed, continue to maintain sideslope.



 $\ensuremath{\text{r.}}$ Overview, woody vegetation has been removed, continue to maintain sideslope.



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc

Levee D:



s. Sta. 64+70, RB, monitor this area for vegetation, no woody vegetation permitted.

Levee C:



t. Left Bank, New damage from last event. No action required at this time. Pending COE repairs.



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc

Revetment X:



u. Sta. 35+50, RB, Monitor eroding sideslope.

Note. Approximate Sta. 55+20 = Revetment "X" Sta. 6+50, 48" RCP drain line referenced from drawing, "Iao Stream Flood Control Project Revetment X Plan Profile and Typical Sections", dated June 17, 1980, sheet 7A, location code 7990-03, class 16 type 02 section 02.

Approximate Sta. 45+00, RB, remove vegetation from two 54" RCP drain lines within levee B referenced from "Iao Parkside" drawings, sheet 11, dated December 4, 1992, Job No. 90044, by Warren S. Unemori Engineering Inc.



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc



v. Erosion Increasing, FY 05 photo.

Levee B:



w. Sta. 21+00, RB, vegetation has been removed from the townside of levee B.



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc

LEVEE A:



 $x.\,$ Sta. 19+65, RB, rocks and vegetation are being removed under Waiehu bridge and beyond.

Concrete Channel - Stream Realignment



y. Approximate Sta. 19+50, RB, continue to remove rocks and vegetation from channel bottom.

FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc



z. Approximate Sta. 4+76, end of channel bottom. Repair fencing on LB channel wall.

6. Findings/Conclusions:

In accordance with EP 500-1-1(dated 30 September 2001), and based on this CEI, the Project Rating Code is "S, Satisfactory". The project condition code is "A, ACCEPTABLE", and the project status is considered "ACTIVE" in the Rehabilitation and Inspection Program.

| Signed | : | | | | |
|--------|--------|-----|--------|--------|-----------|
| Dan Me | eyers, | CE | CPOH-E | C-T | |
| | | | | | |
| | | | | | |
| | | | | | |
| Signed | : | | | | |
| James | Pennaz | z . | P.E., | Chief. | CEPOH-EC- |

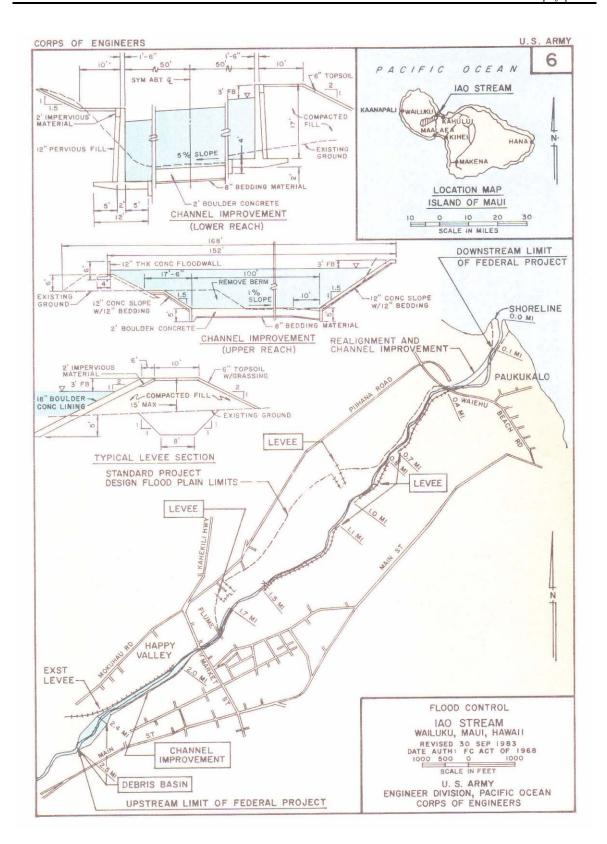
Enclosure(s)

- 1. Site Plan
- 2. As-Bulit Plan

FOR FLOOD CONTROL WORKS

Honolulu Engineer District CEPOH-EC-T

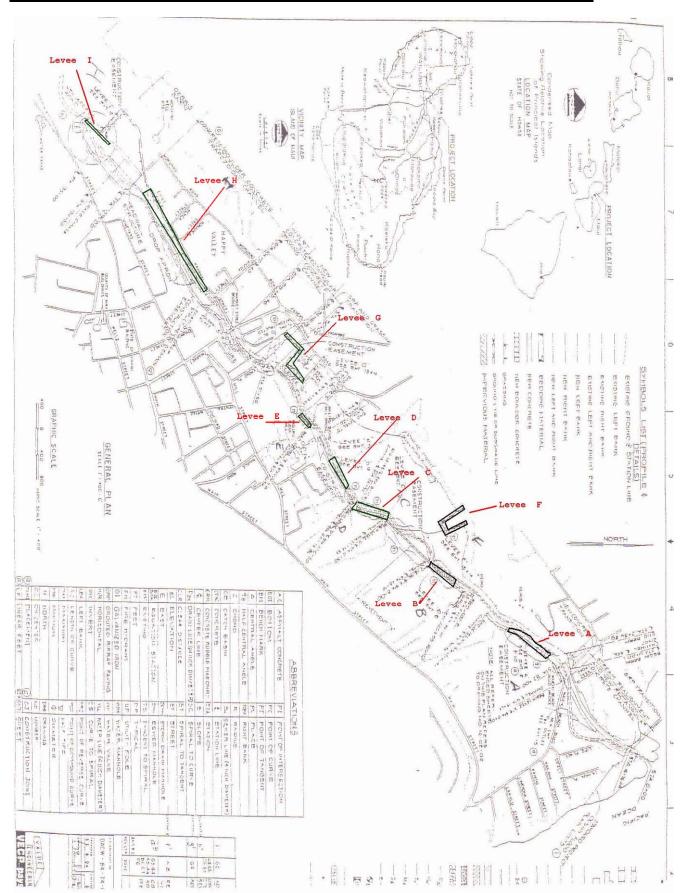
Iao06rpt-fcp.doc



FOR FLOOD CONTROL WORKS Honolulu Engineer District CEPOH-EC-T

IKI

Iao06rpt-fcp.doc





Honolulu Engineer District CEPOH-EC-T

Iao06rpt-fcp.doc

IAO STREAM, MAUI, HAWAII

CONDITION OF IMPROVEMENT 30 SEPTEMBER 1993

PREVIOUS PROJECTS: None.

EXISTING PROJECT: Authorized by the Flood Control Act of 1968. Provides for a debris basin about 2.5 miles upstream of the mouth of Iao Stream; channel improvement from the debris basin to about 1,100 feet downstream of Market Street bridge; diversion levees and flood plain management from the channel improvements to the Waiehu Bridge. The standard project design discharge is 26,500 cfs at the stream mouth.

PROGRESS OF WORK

<u>Completed and Under Maintenance</u>: The project was completed in October 1980. A construction contract for corrective measures for levee protection was completed in November 1983.

Work Remaining: Plans and specifications initiated in November 1992 to correct design deficiency are 30 percent complete.

COST OF CONSTRUCTION:

| Completed Works: | New Work | Maintenance | Total |
|----------------------------------|--------------------|-------------|--------------|
| United States Funds | \$12,285,000 | | \$12,285,000 |
| Contributed Funds (Other) | 274,262 | | 274,262 |
| Total Costs | \$12,559,262 | | \$12,559,262 |
| Uncompleted Works: | | | |
| United States Funds | \$4,540,000 | \$240,000 | \$4,780,000 |
| Contributed Funds Required Other | 1,510,000 | | 1,510,000 |
| Total Estimated Costs | (1993) \$6,052,000 | \$240,000 | \$6,292,000 |